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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,340	01/30/2004	Marc Sacco	04107-P0001A	6368

24126 7590 01/11/2007

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EXAMINER	
COOLMAN, VAUGHN	
ART UNIT	PAPER NUMBER
3618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/768,340	SACCO ET AL.	
	Examiner	Art Unit	
	Vaughn T. Coolman	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2006*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-9,11-19,23-33,35 and 37-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *33 and 35* is/are allowed.

6)☒ Claim(s) *1,2,7-9,12-19,25-32,37-39 and 41-47* is/are rejected.

7)☒ Claim(s) *3-5,11,23,24 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant is advised that the new examiner of record is Travis Coolman to whom all further correspondence should be directed. Contact information can be found in the "Conclusion" section of this correspondence.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear to the examiner the structural relationship defined by the claim language in claim 41. According to the specification and the drawings (FIG 11), the "binding plate (50) is not stationary, and the annular retaining ring (48) is not moveable. A rejection based on art was unable to be made due to the deficiencies of the claims listed above.

Claims 42 and 43 have been rejected as depending from a rejected base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7, 8, 12-19, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Eaton et al (U.S. Patent No. 5803,481).

[claim 1] Eaton discloses a snowboard binding interface assembly (FIGS 4-15) for mounting a snowboard binding (14) to a snowboard (10), the interface assembly comprising:

a base plate (48) coupled to the snowboard and having a plurality of recesses (74, 76) for receiving a locking device;

a stationary annular retaining ring (64) rigidly coupled to said base plate;

a binding plate (46) captured by said stationary annular retaining ring, said binding plate rotationally displaceable with respect to said stationary annular retaining ring;

a top plate (30) coupled to said binding plate and to the snowboard binding;

a locking element (82), displaceable to engagingly lock said top plate to said base plate in one of a plurality of rotational positions, said locking element including a locking pin (98) extending through the top plate, the locking pin engaging with one of a plurality of locking holes located in the base plate; and

an alignment device (combination of spring 104 and narrowing opening of holes 76) for aligning the locking pin with one of the plurality of locking holes when selecting one of the plurality of rotational positions, said alignment device providing an indication to a user when the locking pin is substantially aligned with one of the plurality of locking holes.

[claim 2] Eaton further shows the binding plate (46) comprising a disk.

[claim 7] Eaton further shows the locking pin being biased (FIG 7) to an engaged position with one of the plurality of locking holes.

[claim 8] Eaton further shows the locking holes distributed around a circumference of the base plate (FIG 6).

[claim 12] Eaton further shows the locking pin being connected to one end of a leash (112, 160) which is provided to connect to a rider's leg (Column 8, lines 28-33).

[claim 13] Eaton further shows the locking pin being keyed to maintain the locking pin in a locked position with one of the plurality of locking holes (Column 6, lines 37-48).

[claim 14] Eaton discloses (see above rejections for description of equivalent structural components) a method of adjusting a rotational position of a snowboard boot while in a snowboard binding comprising the steps of:

positioning a snowboard binding interface between a snowboard and the snowboard binding;

vertically displacing a locking mechanism on the snowboard binding interface to disengage the locking mechanism;

rotating the snowboard boot to one of a plurality of rotational positions;

aligning the locking mechanism with one of a plurality of locking holes provided in a base portion of the snowboard binding interface with an alignment device provided in the snowboard binding interface, the alignment device providing an indication to a user when the locking mechanism is substantially aligned with one of the plurality of locking holes; and

engaging the locking mechanism on a snowboard binding interface to rigidly maintain the selected rotational position of the snowboard boot relative to the snowboard.

[claim 16] Eaton further shows the locking mechanism being connected to one end of a leash (112, 160) which is provided to connect to a rider's leg (Column 8, lines 28-33).

[claim 17] Eaton further discloses the step of vertically displacing the locking mechanism is accomplished by pulling upward on the leash that is connected to the locking mechanism.

[claim 18] Eaton further shows the locking mechanism being biased (FIG 7) to a locked position.

[claim 19] Eaton discloses a snowboard binding interface assembly for mounting between a snowboard binding (12) and a snowboard (10), the interface assembly comprising:

a stationary annular retaining ring (64) coupled to the snowboard, said annular retaining ring having an inner circumference (L1);

a binding plate (46) captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said stationary annular retaining ring, said binding plate having an outer circumference (L2), where (L2) is greater than (L1);

a top plate (30) coupled between said binding plate and the snowboard binding, said top plate have an outer circumference (L3), where (L3) is greater than (L2);

a locking element (82) to lock said binding plate in one of the plurality of rotational positions;

an alignment device (combination of spring 104 and narrowing opening of holes 76) for aligning the locking element with one of the plurality of rotational positions; and

a base plate (48) coupled between the snowboard and said stationary annular retaining ring, said base plate having a plurality of recesses (74, 76) for receiving the locking element.

[claim 25] Eaton further shows the locking element being vertically displaceable to engagingly lock said top plate to said base plate in one of the plurality of rotational positions.

[claim 26] Eaton further shows said locking element comprising a locking pin (96, 98) located in said top plate that engages with one of the plurality of recesses.

[claim 27] Eaton further shows the locking pin being selectively biased (104) to an engaged position with one of the plurality of recesses.

Claims 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Eglitis et al (U.S. Patent No. 6,318,749 B1).

[claim 28] Eglitis discloses a snowboard binding interface assembly for mounting between a snowboard binding (30) and a snowboard (20) the interface assembly comprising:

a stationary annular retaining ring (39) coupled to the snowboard, said annular retaining ring having an inner circumference (L1 – 40);

a binding plate (104) captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said stationary annular retaining ring, said binding plate having an outer circumference (L2 – outermost circumference of 104), where (L2) is greater than (L1), said binding plate having an outer circumference (L3 – outermost circumference of 104); and

an outer ring (106) captured by said stationary annular retaining ring, said outer ring having an inner circumference (L4 - 107), where (L3) is greater than (L4).

[claim 29] Eglitis further shows a locking mechanism (FIG 7) to hold said binding plate at one of the plurality of rotational positions.

Claims 37-39 and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Patterson (U.S. Patent No. 6,155,578).

[claim 37] Patterson discloses a snowboard binding interface assembly for mounting between a snowboard binding (12) and a snowboard (10) the interface assembly comprising:

a first stationary portion (40) coupled to the snowboard comprising a continuous enclosed ring;

a second moveable portion (38) coupled to the snowboard binding, said second moveable portion being captured by said first stationary portion such that said second moveable portion is maintained fully within said first stationary portion with no portion thereof extending beyond an outer perimeter of said first stationary portion;

a top plate (20) coupled between said second moveable portion and the snowboard binding, said top plate being rotatable to one of a plurality of rotational positions.

[claim 38] Patterson further discloses the first stationary portion comprising a stationary annular retaining ring and said second moveable portion comprises a binding plate.

[claim 39] Patterson further shows said annular retaining ring having an inner circumference (D4 - L1), and said binding plate has an outer circumference (D1 - L2), where (L2) is greater than (L1).

[claim 45] Patterson further shows a locking element (FIG 10) to lock said second moveable portion in one of the plurality of rotational positions.

[claim 46] Patterson further shows an alignment device (combination of spring 84 and the rounded narrowing of the entrance to holes 44, 46, 48, 50) for aligning the locking element with one of the plurality of rotational positions.

[claim 47] Patterson appears to show the snowboard binding interface assembly having a height (h) of approximately 3/4 of an inch.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton in view of Sabol (U.S. Patent Application Publication No. 2003/0230870 A1).

[claims 9 and 15] Eaton discloses all of the elements of the claimed invention as described above and shows the locking holes being angularly distributed around the base plate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to distribute the locking holes at no less than approximately five degree intervals so that the user would not have to disassemble the binding assembly for greater adjustability. Sabol is evidence of rotational positional adjustability wherein the locking positions are at no less than approximately five degree intervals in the art of snowboard binding assembly (see FIG 1, items 50 & 59).

Claims 30-32 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson (U.S. Patent No. 6,155,578) in view of Acuna Jr. (U.S. Patent No. 5,876,045).

[claims 30 and 44] Patterson discloses a snowboard binding interface assembly (FIGS 3-10) for mounting between a snowboard binding and a snowboard the interface assembly comprising:

a stationary annular retaining ring (40) coupled to the snowboard; and

a binding plate (38) captured by said stationary annular retaining ring, said binding plate rotationally displaceable to a plurality of rotational positions with respect to said stationary annular retaining ring.

Patterson fails to disclose the annular retaining ring having an inner chamfered edge having an angle alpha or the binding plate having a beveled outer edge having an angle beta, where the sum of angle alpha and angle beta equal 180 degrees.

Acuna Jr. teaches a chamfered/beveled interface between an annular retaining ring (15) and a binding plate (10). The angles alpha and beta shown in FIG 2 (18, 22) equal 180 degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly shown by Patterson with the angled interface as taught by Acuna Jr., since such a modification would provide the advantage of reducing the stress factor present in the 90 degree corners disclosed by Patterson.

[claim 31] Patterson further shows a locking element (FIG 10) to lock said binding plate in one of the plurality of rotational positions.

[claim 32] Patterson further shows an alignment device (combination of spring 84 and the rounded narrowing of the entrance to holes 44, 46, 48, 50) for aligning the locking element with one of the plurality of rotational positions.

Response to Arguments

Applicant's arguments with respect to claims 1, 14, 28, 30, and 37 have been considered but are moot in view of the new ground(s) of rejection.

Applicant suggests that Eaton does not disclose an "alignment device" as required by claims 1 and 14. However, the force of the spring biasing the locking pin into the neck of the locking holes shown by Eaton indeed act as an alignment device that provides "an indication to a user" that the locking pin is aligned with one of the locking holes.

Allowable Subject Matter

Claims 33 and 35 are allowed.

Claims 3-5, 11, 23, 24, and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The indicated allowability of claims 20-22 if incorporated to independent claim 19 is withdrawn in view of the newly applied reference(s) to Eaton. Rejections based on the newly cited reference(s) are above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cumby (U.S. Patent Application Publication No. 2004/0100069 A1) teaches a snowboard binding interface assembly including elements of the claimed invention (rings).

White (U.S. Patent No. 6,575,489 B1) and Hale (U.S. Patent No. 5,762,358) teach snowboard binding interface assemblies including elements of the claimed invention (locking pins with leashes and stationary/moveable parts substantially similar in design to the instant application).

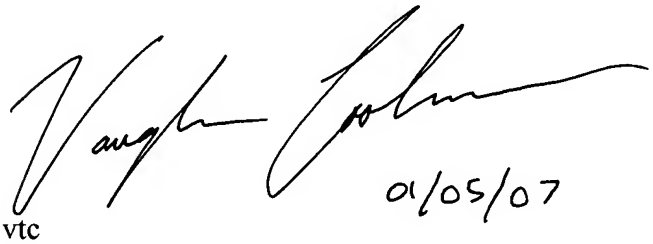
Sabol (U.S. Patent No. 6,994,370; U.S. Patent Application Publication No. 2003/0230870 A1) teaches a snowboard binding interface assembly including elements of the claimed invention.

Hale et al (U.S. Patent No. 5,499,837) teaches a snowboard binding interface assembly including elements of the claimed invention (beveled/chamfered interface between components).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vaughn T. Coolman whose telephone number is (571) 272-6014. The examiner can normally be reached on Monday thru Friday, 8am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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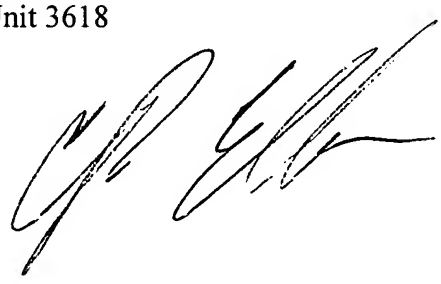
Travis Coolman
Examiner
Art Unit 3618



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